

## Laurens County Early Action Plan for the 8-Hour Ozone Standard

### Background

In 1997, the Environmental Protection Agency (EPA) revised the National Ambient Air Quality Standard (NAAQS) for Ozone from a one-hour standard to an 8-hour standard. This was done to reflect the latest understanding of the effects of ozone exposure and provide public health protection with adequate margin of safety. EPA will be designating areas as attainment (meeting the standard) or non-attainment (not meeting the standard) in April of 2004. This designation will be based on the most recent three years of monitoring data (i.e., 2001, 2002, 2003). The Department of Health and Environmental Control (DHEC) has an intensive monitoring network covering the state and routinely monitors for ozone during the months of April through October. This time period is often referred to as the "Ozone Season." If an area is designated non-attainment, the Clean Air Act (CAA) requires states to revise their State Implementation Plan (SIP) outlining how the area will return to attainment within a certain time period. If EPA designates areas in South Carolina as non-attainment in April of 2004, a revision to the South Carolina SIP will be due no later than 2007. Additionally, once an area is designated as non-attainment, the CAA has specific requirements that must be implemented. These requirements affect industry, economic development, and transportation. One requirement, Non-attainment New Source Review sets out the level of emissions reductions required for new and modified industrial facilities. Another requirement of non-attainment areas is to coordinate local transportation and air quality planning to ensure that transportation plans, programs and projects are consistent with air quality goals. According to the CAA, transportation plans, programs, and projects cannot create new violations of the Federal air quality standards; increase the frequency or severity of existing violations of the standard; or, delay attainment of standards.

The above approach is commonly referred to as the "traditional" approach. While safeguards for areas to return to attainment are included, certain prescriptive requirements may not be appropriate for all areas designated non-attainment for the 8-hour ozone standard. As a result, EPA provided an option for areas that were meeting the one-hour standard to attain the 8-hour ozone standard by December 31, 2007, and obtain cleaner air sooner than currently federally mandated. This option offers a more expeditious time frame for achieving emissions reductions, while providing "fail-safe" provisions for the area to revert to the traditional SIP process if specific milestones are not met. EPA will move forward with the designation process (attainment or non-attainment) but will defer the effective date, thus the prescriptive requirements of non-attainment designations, provided all terms and conditions of an Early Action Compact (EAC) are being met.

Forty-five counties in South Carolina elected to participate in the development of an Early Action State Implementation Plan (EAP). Participants in the EAC include the county, DHEC and the EPA. All of these parties agree to work together to implement federal, state and local emissions control measures that will allow the non-attainment areas to attain the 8-hour ozone standard earlier and therefore avoid implementing costly prescriptive measures. The EAC requires that all counties submit a local Early Action Plan to DHEC by March 31, 2004.

Although our county is not a potential area to be designated non-attainment for the 8-hour ozone standard, other areas in South Carolina may be designated non-attainment. As air knows no boundaries, implementation of emission reduction strategies and support of federal and state rules and regulations will help to provide cleaner air sooner to citizens of South Carolina.

## **What is Ozone?**

Ozone is a gas that occurs both in the Earth's upper atmosphere and at ground level. Ozone is one of six criteria pollutants used by the EPA as an indicator of air quality. Depending on where ozone is found, it can be good or bad. Occurring naturally in the upper atmosphere, ozone acts as a shield from the sun's harmful ultraviolet rays. However, ground-level ozone is a concern during the summer months when the weather conditions are favorable for producing ozone. Ozone is formed by chemical reactions between volatile organic compounds (VOCs) and oxides of nitrogen (NOx) in the presence of sunlight. Ozone is a major ingredient of smog.

## **Ozone Health Effects**

Ozone can cause permanent damage to the respiratory system. Active children are at highest risk from ozone exposure because they often spend a large amount of time outdoors. Active adults of all ages who exercise or work outdoors have an increased risk of exposure to elevated levels of ozone. People with asthma or other respiratory diseases are particularly sensitive to ozone exposure.

## **Sources of NOx and VOCs**

NOx and VOCs come from emissions from the following sources: stationary, area, mobile and natural. Stationary sources include larger permitted industry and power plants. Area sources are small, stationary and non-transportation sources that collectively contribute to air pollution. Area sources include gas stations (emit NOx) and dry-cleaners (emit VOCs). Mobile sources are divided into two categories, on-road and off-road. The off-road mobile sources include trains, ships, boats, airplanes, lawn equipment, and construction equipment. On-road mobile sources include cars, trucks, and buses. Natural sources for VOCs are released from vegetation, mostly trees in South Carolina. Natural sources for NOx are very rare and include emissions from soil, lightning, and oceans.

## **Stakeholder Involvement**

See attached report following Emission Reduction Strategies.

## **Emission Reduction Strategies**

Through the development and implementation of this plan, local emission reduction strategies that are economically feasible and that make sense for the county will be implemented no later than April 2005. In doing so, these efforts should assist the state in achieving the 8-hour ozone standard by December 31, 2007, and maintaining the standard beyond 2012. (see attached list)

A number of federal control measures are in place and/or will be phased in over the next several years. These programs include the Tier II and Low Sulfur Gasoline and also the NOx SIP call. All of these programs have been developed to help areas attain air quality standards.

The state is also proposing new and/or modifications to regulations that will assist non-attainment areas. The State programs could include a regulation that would result in VOC and NOx reductions; modifications to the open burning regulations and a process to assure transportation plans, programs, and projects consider air quality goals.

Attachment 1 contains a list of emission reduction strategies that will be implemented by the county. While it may not be possible to determine emissions reductions for each of the strategies included, directionally sound strategies have been selected and the county anticipates the cumulative impact of adopting each of these strategies will assist in maintaining the standard.

## **Maintenance**

The county will continue to address strategies that will assist in long-term maintenance of the 8-hour ozone standard. DHEC will continue to provide the air quality monitoring necessary to determine attainment of the 8-hour ozone standard. Yearly, at the end of each ozone season, there will be a review and evaluation to determine the effectiveness of the strategies adopted. If necessary, additional emission reduction strategies may be adopted. Maintenance of the standard will depend upon the success of emission reduction strategies implemented as well as federal and state initiatives.

Early Action Compact Milestone – March 2004 Final  
List of Emission Reduction Strategies To be Implemented

Laurens County

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures can be reasonably implemented. It is anticipated these measures under consideration will assist Laurens County in achieving and/or maintaining the 8-hour ozone standard by 2007.

Measure under Consideration	Description of measure	Estimate of emission reductions (if available)	Proposed date for implementation	Geographic area and/or local government
Air Quality Contact	Scott Holland, Dir. of Public Works, is identified as the Air Quality Contact. At a minimum, this contact will be responsible for ozone education/outreach and dissemination of ozone forecast.	Not available	March 2003	County wide
Support state-wide efforts	Laurens County will support the efforts of SC DHEC regarding state-wide emission reduction strategies.	Not available	March 2003	County wide
Reduce motorized activities	<i>Laurens County will delay or reschedule mowing and motorized construction and maintenance activities on Ozone Action days where practical</i>	<i>Not available</i>	<i>July 2003</i>	<i>County wide</i>
Restrict painting activities	<i>Laurens County will restrict indoor and outdoor painting activities on Ozone Action days where practical</i>	<i>Not available</i>	<i>July 2003</i>	<i>County wide</i>
Commuter actions	<i>Laurens County will encourage ridesharing for all employees in the performance of their duties where practical.</i>	<i>Not available</i>	<i>July 2003</i>	<i>County wide</i>
Vehicle maintenance	<i>Laurens County will promote and encourage vehicle care, repair, and maintenance to maintain and achieve air quality</i>	<i>Not available</i>	<i>May 2004</i>	<i>County wide</i>

Early Action Compact Final Plan March 2004  
Laurens County

1. Document progress in developing stakeholder process, including, for example, roles and responsibilities of various stakeholder groups, list of stakeholders, brief summary of stakeholder meetings, stakeholder involvement in development of initial list of control measures, etc.

*Check all of the following statements that apply to your county.*

1.	X	Attached is a list of the stakeholders. (see attached cover letter)
2.	X	A stakeholder meeting was held on November 26, 2002 (see attached minutes of that meeting.) Laurens County Council and Laurens County Staff members have been involved promoting the EAC through development of the August 2003 and December 2003 updates.
3.	X	A stakeholder meeting is planned for Spring of 2004 to announce Laurens County's Final Plan and Reduction Strategies.
4.	X	DHEC representatives attended a February 4, 2003 meeting held at Upper Savannah which was attended by additional stakeholders' representatives from Laurens County Government.
5.	X	DHEC representatives were consulted regarding the stakeholder process.
6.	X	The stakeholders were consulted regarding the emission reduction strategies under consideration
7.		
8.		

2. Report progress on evaluating and selecting emission reduction measures for the local control strategy.

See March 2004 submittal *List of Final Emission Reduction Strategies*.

3. Describe public outreach activities (press coverage, public presentations, websites, etc.)

*Check all of the following statements that apply to your county.*

1.	X	The media has been invited to attend stakeholder meetings.
2.		A press release regarding the 8-hour ozone standard and/or activities related to the Early Action Compact has been issued.
3.	X	Meetings in which the 8-hour ozone standard and/or activities related to the Early Action Compact were open to the public (i.e., county council meetings) were held on November 26, 2002. (see attached minutes from that meeting.)
4.	X	The press covered the November, 26 2002 meeting and published a summary of actions taken.
5.	X	The county EAC website is: Laurens County's main web site is <a href="http://www.laurenscounty.org">www.laurens county.org</a> . We plan to post information regarding our EAC in the future.
6.		
7.		

Refer to the June 2003 Progress Report submitted by SCDHEC for statewide activities.

County of Laurens  
**Department of Public Works**  
Post Office Box 238  
Laurens, South Carolina 29360-0238  
**Telephone (864) 984-6812**  
**Fax (864) 984-3726**

May 23, 2003

Melinda C. Mathias  
SCDHEC – Bureau of Air Quality  
2600 Bull Street  
Columbia, S C 29201

Re: EAC Progress Report and Strategies

Dear Ms. Mathias:

Laurens County is pleased to submit the attached reports related to our Early Action Compact program. In March of 2003 I was appointed as the County's Air Quality Contact for our EAC. I can be reached by phone at 864-984-6812 or if that line is busy 864-984-5484. You can also reach me at the address above or by e-mail at [sholland@co.laurens.sc.us](mailto:sholland@co.laurens.sc.us). Laurens County has determined that at a minimum the following are Stakeholders related to air quality and our EAC.

1. Laurens County Government and County Council
2. City of Laurens Government and Council
3. City of Clinton Government and Council
4. Town of Gray Court Government and Council
5. Town of Fountain Inn Government and Council
6. Town of Waterloo Government and Council
7. Town of Cross Hill Government and Council
8. Commercial and Industrial Businesses
9. Public Service Providers
10. Public and Private Civic Organizations
11. Public School Districts within Laurens County
12. Laurens County Chamber of Commerce
13. All Citizens of Laurens County
14. DHEC

Laurens County will continue to review strategies to meet and maintain the 8-hour Ozone Standard. This review may result in changes or additions to the strategies that will be adopted in our final plan. Please let us know if you have any comments.

Sincerely,

  
Scott Holland, Dir.